

## ABSTRACT

Disclosed is a process for preparing polymers and copolymer blocks of conjugated dienes with varying amounts of branching comprising the use of a microstructure control agent and a microstructure control agent deactivant. The  
5 polymerization can be started with or without a microstructure control agent. At some point in the polymerization prior to the completion of the addition of the conjugated diene to the polymer, the microstructure control agent can be deactivated, either partially or completely, resulting in a polymer or copolymer block having a region of less branching adjacent to a region of more branching.  
10 Preferred microstructure control agent deactivants are metal alkyls such as triethyl aluminum.